

ABSTRACT OF THE DISCLOSURE

This invention provides for a technique for selectively off-loading traffic from congested sub-regions of a network to more lightly-loaded regions by making use of Multiprotocol Label Switching (MPLS). For each network element, an Interior Gateway
5 Protocol (IGP) routing is employed to provide re-routing and to identify congested links caused by re-routed trunks for each single failure. The re-routed traffic is then analyzed and alternate Label Switched Paths (LSPs) are identified for such traffic trunks so that the traffic is directed to the alternate LSPs during the single failure event.